

A Study on The Vaccine Delivery Effect Using Nano Particles

강익중*, 김범길

경원대학교

(ijkang@kyungwon.ac.kr*)

Recently, it is very mortal that people over 8 % get infected with chronic hepatitis as increasing trend and consequently led to the death because of a complication arises of cirrhosis and liver cancer. All of the infants have to be prescribed by three consecutive injection of hepatitis vaccine just after his birth adults are also prescribed by an intra muscular injection every five years. Hepatitis virus(Hv) is the liver affinity DNA virus as a kind of hepadna virus has 42 nm diameter and no cell denaturalization phenomenon. Outer membrane of the virus consist of hepatitis surface antigen(HBsAg) and center is composed of HV DNA and hepatitis B core antigen(HBcAg). There are four genes of S, C, X, P in HV DNA. S gene has the pre-S region composed of pre-S1 and pre-S2 as an encoding gene of surface antigen. C gene is in the precore region for the encoding of core protein(HBcAg). In this study, biodegradable polymer's derivatives was synthesised, made to nano particles as a supporter of vaccine, and analyzed by FT-IR, HPLC, atomic analyzer , and SEM for the development of effective drug delivery system. The character of vaccine delivery body as its size and surface polarity was analyzed by AFM and Zeta potential.